

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Craig Plastrik, the attorney in record, gave authorization for this Examiner's Amendment over the telephone during an interview. The claims amendments are as follow:

PLEASE AMEND THE CLAIMS AS FOLLOWS:

1. (Currently Amended) A method for retrieving content from a web server that is upstream over a communication network from a browser application and a downstream proxy, the method comprising:

receiving a request, at the downstream proxy, from the browser application for the content in the web server;

modifying the request to specify support of a parse and pre-fetch function, the request being modified in a manner so as to permit handling of the modified request directly by the web server in absence of an upstream-proxy, upstream over the communication network for handling the modified request for the web server;

forwarding the modified request over a communication link of the communication network to the web server, wherein the upstream proxy, if present, intercepts

the modified request and, in response to the specified support of the parse and pre-fetch function, executes the parse and pre-fetch function, whereby the upstream proxy pre-fetches at least a portion of the content from the web server; and
selectively receiving the content from the upstream proxy over the communication link and forwarding the content to the browser application, and
wherein, pursuant to the parse and pre-fetch function, the upstream proxy retrieves an initial portion of the content from the web server, and parses the retrieved initial content, and wherein the pre-fetched portion of the content is based at least in part on the parsed initial content.

2. (Canceled)

3. (Previously Presented) A method according to claim 1, wherein the request conforms with a Hypertext Transfer Protocol (HTTP), the method further comprising:
inserting treatment information in an optional field of the request.

4. (Original) A method according to claim 1, wherein the step of modifying the request is transparent to the browser application.

5. (Previously Presented) A method according to claim 1, further comprising:
receiving a second request from a second browser application;
modifying the second request in a same manner as with the request; and

forwarding the modified second request over a second communication link of the communication network to a second upstream proxy, wherein said receiving, modifying and forwarding steps with respect to the second request are concurrently executed with the steps of receiving, modifying and forwarding the request.

6. (Currently Amended) A method according to claim 1, further comprising:

communicating with a switching module to receive the request, wherein the switching module includes Open Systems Interconnection (OSI) Layer 4 functionality to redirect the request from a network interface.

7. (Original) A method according to claim 1, wherein the content conforms with a markup language that includes Hypertext Markup Language (HTML).

8. (Previously Presented) A method according to claim 1, wherein the communication network comprises a Very Small Aperture Terminal (VSAT) satellite network, and the upstream proxy resides in an upstream VSAT in communication with the web server.

9. (Previously Presented) A non-transitory computer-readable storage medium bearing instructions for retrieving content from a web server that is upstream over a communication network, said instructions being arranged, upon execution, to cause one or more processors to perform the method of claim 1.

10. (Currently Amended) A network apparatus for supporting retrieval of content from a web server that is upstream over a communication network from a browser application and the network apparatus, the apparatus comprising:

an interface configured to receive a request from the browser application for the content in the web server;

a proxy configured to modify the request to specify support of a parse and pre-fetch function, the request being modified in a manner so as to permit handling of the modified request directly by the web server in absence of an upstream proxy, upstream over the communications network from the network apparatus for handling the modified request for the web server; and

an interface configured to forward the modified request over a communication link of the communication network to the web server, and

wherein the upstream proxy, if present, intercepts the modified request and, in response to the specified support of the parse and pre-fetch function, executes the parse and pre-fetch function, whereby the upstream proxy pre-fetches at least a portion of the content from the web server, and

wherein the proxy is further configured to receive the content from the upstream proxy over the communication link and to forward the content to the browser application, and

wherein, pursuant to the parse and pre-fetch function, the upstream proxy retrieves an initial portion of the content from the web server, and parses the

retrieved initial content, and wherein the pre-fetched portion of the content is based at least in part on the parsed initial content.

11. (Canceled)

12. (Previously Presented) A network apparatus according to claim 10, wherein the request conforms with a Hypertext Transfer Protocol (HTTP), the downstream proxy inserting treatment information in an optional field of the request.

13. (Original) A network apparatus according to claim 10, wherein the request is transparent to the browser application.

14. (Previously Presented) A network apparatus according to claim 10, wherein the proxy concurrently communicates with a plurality of upstream proxies including the upstream proxy.

15. (Original) A network apparatus according to claim 10, further comprising:
a switching module coupled to the interface, the switching module including Open Systems Interconnection (OSI) Layer 4 functionality to redirect the request from the interface to the downstream proxy.

16. (Original) A network apparatus according to claim 10, wherein the content conforms with a markup language that includes Hypertext Markup Language (HTML).

17. (Previously Presented) A network apparatus according to claim 10, wherein the communication network comprises a Very Small Aperture Terminal (VSAT) satellite network, and the upstream proxy resides in an upstream VSAT in communication with the web server.

18. (Previously Presented) A network apparatus according to claim 10, further comprising:

a downstream proxy, downstream over the communication network from the web server and the upstream proxy, configured to support pre-fetching of content from a second web server local to the network apparatus.

19. (Currently Amended) A method for retrieving content from a web server that is upstream over a communication network from a browser application and a downstream proxy, the method comprising:

intercepting a request for the content, wherein the request has been modified by the downstream proxy to specify support of a parse and pre-fetch function, in a manner so as to permit handling of the modified request directly by the web server in absence of an upstream proxy, upstream over the communication network for handling the modified request for the web server, and forwarded by the downstream proxy over a communication link of the communication network to the web server;

pre-fetching, in response to the specified support of the parse and pre-fetch function, at least a portion of the content from the web server pursuant to the parse and pre-fetch function; and
forwarding the content to the downstream proxy over the communication link,
and
wherein, pursuant to the parse and pre-fetch function, the method further comprising retrieving an initial portion of the content from the web server, and parsing the retrieved initial content, wherein the pre-fetched portion of the content is based at least in part on the parsed initial content.

20. (Canceled)

21. (Previously Presented) A method according to claim 19, wherein the request conforms with a Hypertext Transfer Protocol (HTTP), and the method further comprising:

inserting treatment information in an optional field of the request.

22. (Original) A method according to claim 19, wherein the step of intercepting the request is transparent to the browser application.

23. (Original) A method according to claim 19, wherein the content conforms with a markup language that includes Hypertext Markup Language (HTML).

24. (Previously Presented) A method according to claim 19, wherein the communication network comprises a Very Small Aperture Terminal (VSAT) satellite network, and the downstream proxy resides in an VSAT in communication with the browser application.

25. (Previously Presented) A non-transitory computer-readable storage medium bearing instructions for retrieving content from a web server that is upstream over a communication network from a browser application, said instructions being arranged, upon execution, to cause one or more processors to perform the method of claim 19.

26. (Currently Amended) A network apparatus for retrieving content from a web server, wherein the network apparatus and the web server are upstream over a communication network from a browser application and a downstream proxy, the network apparatus comprising:

an interface configured to intercept a request for the content, wherein the request has been modified by the downstream proxy to specify support of a parse and pre-fetch function and forwarded by the downstream proxy over a communication link of the communication network to the web server; and
an upstream proxy configured to pre-fetch, in response to the specified support of the parse and pre-fetch function, at least a portion of the content from the web server pursuant to the parse and pre-fetch function, and to forward the content to the downstream proxy over the communication link, and

wherein, pursuant to the parse and pre-fetch function, the upstream proxy retrieves an initial portion of the content from the web server, and parses the retrieved initial content, and wherein the pre-fetched portion of the content is based at least in part on the parsed initial content.

27. (Canceled)

28. (Previously Presented) A network apparatus according to claim 26, wherein the request conforms with a Hypertext Transfer Protocol (HTTP), and the downstream proxy inserts treatment information in an optional field of the request.

29. (Previously Presented) A network apparatus according to claim 26, wherein the pre-fetching of at least a portion of the content is transparent to the browser application.

30. (Original) A network apparatus according to claim 26, wherein the content conforms with a markup language that includes Hypertext Markup Language (HTML).

31. (Previously Presented) A network apparatus according to claim 26, wherein the communication network comprises a Very Small Aperture Terminal (VSAT) satellite network.

32. (Currently Amended) A system for supporting retrieval of content from a web server that is upstream over a meshed communication network from a browser application and a downstream proxy, the system comprising:

a downstream server, downstream over the meshed communication network from the web server, configured to receive a request for the content from a browser application, the downstream server including the downstream proxy, wherein the downstream proxy is configured (1) to modify the request to specify support of a parse and pre-fetch function, the request being modified in a manner so as to permit handling of the modified request directly by the web server in absence of an upstream proxy, upstream over the meshed communications network from the downstream server for handling the modified request for the web server, and (2) to forward the modified request over a communication link of the meshed communication network to the web server; and

an upstream server, upstream over the meshed communication network from the downstream server, configured to intercept the modified request, the upstream server including the upstream proxy configured to pre-fetch, in response to the specified support of the parse and pre-fetch function, at least a portion of the content from the web server pursuant to the parse and pre-fetch function, and to forward the content to the downstream server over the communication link, and

wherein, pursuant to the parse and pre-fetch function, the upstream proxy retrieves an initial portion of the content from the web server, and parses the retrieved initial content, and wherein the pre-fetched portion of the content is based at least in part on the parsed initial content.

33. (Canceled)

34. (Previously Presented) A system according to claim 32, further comprising:

a plurality of upstream proxies in simultaneous communication with the downstream proxy of the downstream server, each for supporting the parse and pre-fetch function with respect to content from a respective plurality of web servers.

35. (Previously Presented) A system according to claim 32, wherein the downstream server includes a switching module having Open Systems Interconnection (OSI) Layer 4 functionality to redirect the request from a network interface to the downstream proxy.

36. (Currently Amended) A network device for retrieving content from a web server that is upstream over a communication network from a browser application and a downstream proxy, the device comprising:

means for receiving a request, at the downstream proxy, from the browser application for the content in the web server;

means for modifying the request to specify support of a parse and pre-fetch function, the request being modified in a manner so as to permit handling of the modified request directly by the web server in absence of an upstream proxy, upstream over the communications network from the network device for handling the modified request for the web server;

means for forwarding the modified request over a communication link of the communications network to the web server, wherein the upstream proxy, if present, intercepts the modified request and, in response to the specified support of the parse and pre-fetch function, executes the parse and pre-fetch function, whereby the upstream proxy pre-fetches the content from the web server; and

means for selectively receiving the content from the upstream proxy over the communication link and forwarding the content to the browser application,
and

wherein, pursuant to the parse and pre-fetch function, the upstream proxy retrieves an initial portion of the content from the web server, and parses the retrieved initial content, and wherein the pre-fetched portion of the content is based at least in part on the parsed initial content.

Allowable Subject Matter

Claims 1, 3-10, 12-19, 21-26, 28-32 and 34-36 are allowed.

The following is an Examiner's statement of reasons for allowance:

The prior arts in record fail to teach "modifying the request to specify support of a parse and pre-fetch function, the request being modified in a manner so as to permit handling of the modified request directly by the web server in absence of an upstream-proxy, upstream over the communication network for handling the modified request for the web server, and selectively receiving the content from the upstream proxy over the communication link and

forwarding the content to the browser application, wherein, pursuant to the parse and pre-fetch function, the upstream proxy retrieves an initial portion of the content from the web server, and parses the retrieved initial content, and wherein the pre-fetched portion of the content is based at least in part on the parsed initial content," as recited in independent claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to El Hadji M Sall whose telephone number is 571-272-4010. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/El Hadji M Sall/

Examiner, Art Unit 2457

/ARIO ETIENNE/

Supervisory Patent Examiner, Art Unit 2457